
DigitalSecurityCamera:1 Device Template Version 1.01

For UPnP™ Version 1.0

Status: Standardized DCP

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1. Overview and Scope

This device template is compliant with the Universal Plug and Play Architecture, Version *1.0*.

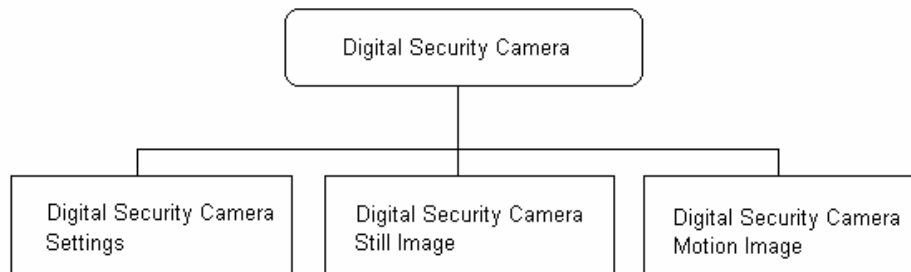
DigitalSecurityCamera:1.0 provides the following functionality:

- Providing control of basic settings of the actual image generating part.
- Enabling access to live snapshot still images.
- Enabling access to live motion images (video).
- Implements a “stateless” behavior. The action of fetching a VideoURL or VideoPresentationURL does not affect the properties of previous, simultaneous or later fetched video streams and VideoPresentation URLs. This allows for multiple User Control Points to receive images with different properties without potential interference.

This device template does not address:

- Analog camera functions
- Pan Tilt Zoom devices

Figure 1 *DigitalSecurityCamera:1* Functional Diagram



2. Device Definitions

2.1. Device Type

The following device type identifies a device that is compliant with this template:

urn:[schemas-upnp-org:device:DigitalSecurityCamera:1](#)

2.2. Device Model

Products that expose devices of the type **urn:schemas-upnp-org:device:DigitalSecurityCamera:1** must implement minimum version numbers of all required embedded devices and services specified in the table below.

Table 1: Device Requirements

| DeviceType | Root | Req. or Opt. ¹ | ServiceType | Req. or Opt. ¹ | Service ID ² |
|--|----------------------|---------------------------|--|-------------------------------|--|
| DigitalSecurityCamera:1 | Root | R | DigitalSecurityCameraSettings:1 | R | DigitalSecurityCameraSettings |
| | | | DigitalSecurityCameraStillImage:1 | O³ | DigitalSecurityCameraStillImage |
| | | | DigitalSecurityCameraMotionImage:1 | O³ | DigitalSecurityCameraMotionImage |
| | | | <i>Non-standard services embedded by an UPnP vendor go here.</i> | X | TBD |
| <i>Non-standard devices embedded by a UPnP vendor go here.</i> | TBD | X | TBD | TBD | TBD |
| | | | | | |

¹ R = Required, O = Optional, X = Non-standard.

² Prefixed by urn:[upnp-org:serviceId:](#)

³ [At least one of DigitalSecurityCameraStillImage or DigitalSecurityCameraMotionImage shall be implemented.](#)

2.3. Theory of Operation

A Digital Security Camera Device contains services for fetching images and controlling of basic settings of the actual image generating part.

Settings are global to the device and will affect images generated by the device regardless of retrieval method. For instance if a device is equipped with an instance of the *Digital Security Camera Motion Image* service and an instance of the *Digital Security Camera Still Image* service, images “retrieved” using either of these services will be affected by changes described in the *Digital Security Camera Settings* service.

It is required for a Digital Security Camera Device to support access to live snapshot still images. Supporting of live motion images (video) is optional for the device.

The operation of fetching images is “stateless”. The action of fetching an ImageURL or VideoURL does not affect the properties of previous, simultaneous or later fetched Image or Video URLs. This allows for multiple User Control Points to receive images with different properties without potential interference.

3. XML Device Description

```

<?xml version="1.0"?>
<root xmlns="urn:schemas-upnp-org:device-1-0">
  <specVersion>
    <major>1</major>
    <minor>0</minor>
  </specVersion>
  <URLBase>base URL for all relative URLs</URLBase>
  <device>
    <deviceType>urn:schemas-upnp-
org:device:DigitalSecurityCamera:1</deviceType>
    <friendlyName>short user-friendly title</friendlyName>
    <manufacturer>manufacturer name</manufacturer>
    <manufacturerURL>URL to manufacturer site</manufacturerURL>
    <modelDescription>long user-friendly title</modelDescription>
    <modelName>model name</modelName>
    <modelName>model number</modelName>
    <modelURL>URL to model site</modelURL>
    <serialNumber>manufacturer's serial number</serialNumber>
    <UDN>uuid:UUID</UDN>
    <UPC>Universal Product Code</UPC>
    <iconList>
      <icon>
        <mimetype>image/format</mimetype>
        <width>horizontal pixels</width>
        <height>vertical pixels</height>
        <depth>color depth</depth>
        <url>URL to icon</url>
      </icon>
      XML to declare other icons, if any, go here
    </iconList>
    <serviceList>
      <service>
        <serviceType>urn:schemas-upnp-
org:service:DigitalSecurityCameraSettings:1</serviceType>
        <serviceId>urn:upnp-
org:serviceId:DigitalSecurityCameraSettings</serviceId>
        <SCPDURL>URL to service description</SCPDURL>
        <controlURL>URL for control</controlURL>
        <eventSubURL>URL for eventing</eventSubURL>
      </service>
      <service>
        <serviceType>urn:schemas-upnp-
org:service:DigitalSecurityCameraStillImage:1</serviceType>
        <serviceId>urn:upnp-
org:serviceId:DigitalSecurityCameraStillImage</serviceId>
        <SCPDURL>URL to service description</SCPDURL>
        <controlURL>URL for control</controlURL>
        <eventSubURL>URL for eventing</eventSubURL>
      </service>
      <service>
        <serviceType>urn:schemas-upnp-
org:service:DigitalSecurityCameraMotionImage:1</serviceType>

```

```
<serviceId>urn:upnp-  
org:serviceId:DigitalSecurityCameraMotionImage</serviceId>  
<SCPDURL>URL to service description</SCPDURL>  
<controlURL>URL for control</controlURL>  
<eventSubURL>URL for eventing</eventSubURL>  
</service>  
  Declarations for other services added by UPnP vendor (if any) go here  
</serviceList>  
<deviceList>  
  Description of embedded devices added by UPnP vendor (if any) go here  
</deviceList>  
<presentationURL>URL for presentation</presentationURL>  
</device>  
</root>
```

4. Test

Syntactical testing is performed by the UPnP test tool based on the XML description as provided in Section 3.

The working committee and the implementers have come to the conclusion that further test descriptions e.g. for semantical testing do not provide a higher level of interoperability.

Thus the XML description is deemed to be sufficient for testing of devices that implement this template and further test descriptions are not provided by this template.